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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/000,219	12/04/2001	Masafumi Nishitani	Q67539	9175
65565 7590 12/20/2006 SUGHRUE-265550 2100 PENNSYLVANIA AVE. NW WASHINGTON, DC 20037-3213			EXAMINER DUONG, THANH P	
			ART UNIT	PAPER NUMBER
			1764	
SHORTENED STATUTORY PERIOD OF RESPONSE		MAIL DATE	DELIVERY MODE	
3 MONTHS		12/20/2006	PAPER	

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/000,219	<b>Applicant(s)</b> NISHITANI ET AL.	
	<b>Examiner</b> Tom P. Duong	<b>Art Unit</b> 1764	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 26 September 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1,3-7,9-12 and 15-48 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,3-7,9-12 and 15-48 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

Applicants' remarks and amendments filed on September 26, 2006 have been carefully considered. Claims 1, 3-7, 9-12, and 15-48 are pending in this application.

### *Claim Rejections - 35 USC § 102/103*

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claims 1, 3-7, 10-12, 17-26, 33-40, and 43-45 are rejected under 35

U.S.C. 102(e) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Chen (6,368,233). Regarding claims 1, 4, 6-7, 10, 12, 17-26, and 33-36, Chen

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discloses a wood-type golf club head having a hollow head body comprising: a shaft (not shown but inherent feature of a golf club); and a striking face 62 including a plurality of metal pieces (main piece 62 of titanium and arcuate piece 64 of stainless steel); a crown member 30 including a plurality of pieces (main piece 32 titanium and annular piece 34 stainless steel). The recitation with respect to "laser welding, press forming, plastic working, and formed by applying post-machining" is directed to the method of production, which does not impart structural limitation to the claimed apparatus. Note, the patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even through the prior product was made by a different process. See *In re Thorpe*, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985) and *In re Fessmann*, 489 F.2d 742, 744, 180 USPQ 324 (CCPA 1974). See MPEP 2113. With respect to claims 5 and 11, the recitation with respect to the melting temperature does not further add structural limitation to the claimed invention, and it appears the combination of the above applied references has a face component with melting temperature of the claimed invention being the fact that the face material of the applied references is made of the same material as the face component of the claimed invention. Regarding claims 37-40, the recitation with respect to "laser welding of plurality of metal pieces in the same plane and press forming to formed a curved surface portion of the striking face" is directed to method of production, which does not impart structural limitation to the claimed apparatus. Note, the patentability of a product does not depend on its method of production. If the product in the product-by-process

claim is the same as or obvious from a product of the prior art, the claim is unpatentable even through the prior product was made by a different process. See *In re Thorpe*, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985) and *In re Fessmann*, 489 F.2d 742, 744, 180 USPQ 324 (CCPA 1974). See MPEP 2113. With respect to claims 3 and 43-45, Chen appears to show the metal pieces have the same thicknesses. Furthermore, it would have an obvious matter of design choice to one having ordinary skill in the art to select the metal pieces having the same or different thicknesses since the court held that a change in size is within the level ordinary skill in the art. See *In re Rose*. See MPEP. 2100.04.

2. Claims 24-26, 40, and 46 are rejected under 35 U.S.C. 102(e) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Ciasullo (6,739,984). Ciasullo discloses a wood-type golf club head having a hollow head body comprising: a shaft (not shown but inherent feature of a golf club); a crown member 30 including a plurality of metal pieces (18, 22) are welded together to form a curved portion of the crown member (Col. 5, lines 15-24). The recitation with respect to "laser welding, press forming, forged, and rolled " is directed to the method of production, which does not impart structural limitation to the claimed apparatus. Note, the patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even through the prior product was made by a different process. See *In re Thorpe*, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985) and *In re Fessmann*, 489 F.2d 742,

744, 180 USPQ 324 (CCPA 1974). See MPEP 2113. With respect to claim 46, Ciasullo appears to show the metal pieces have the same thicknesses. Furthermore, it would have an obvious matter of design choice to one having ordinary skill in the art to select the metal pieces having the same thickness since the court held that a change in size is within the level ordinary skill in the art. See *In re Rose*. See MPEP. 2100.04.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1, 3-7, 9-12, 15-23, and 43-44 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kosugi et al. (6,106,412) in view of Shaw et al. '535.

Regarding claims 1, 7, and 15-23, Kosugi et al. discloses a golf hollow golf club head (Fig. 1) comprising: a shaft (S) and a metal head (1) attached to the shaft, wherein the metal head comprises a body (22,23) having an opening in which a striking face member (21), wherein the face member (21) is press forming, forging, and plastic working (Col. 3, lines 25-30) from a rolled material to form a smooth, curved surface portion (Fig. 2) of the striking face member (21) and the body parts (21,22,23) are welded to form an integral unit (Col. 2, lines 60-64). Kosugi et al. fails to disclose the striking face member is made of a plurality of metal pieces are fixed together by laser

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welding. Shaw teaches a metal face plate (Col. 2, lines 13-20) can be made of one or more component(s) (Col. 1, lines 42-58 and Figs. 23-26), which are welded together (Col. 4, lines 23-29). Such multi-piece face component(s) provide a golf club with different properties such as weight distribution, friction, spin rates, flexural modulus, resilience, and hardness, and aesthetic appearance (Col. 2, lines 13-17, Col. 2, lines 39-43), Col. 3, lines 35-45). Thus, it would have been obvious in view of Shaw to one having ordinary skill in the art to modify the striking face member of Kosugi with a face member with a plurality of pieces as taught by Shaw to gain the above benefits. The recitation with respect to "laser welding, press forming, and plastic working" is directed to the method of production, which does not impart structural limitation to the claimed apparatus. Note, the patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even through the prior product was made by a different process. See *In re Thorpe*, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985) and *In re Fessmann*, 489 F.2d 742, 744, 180 USPQ 324 (CCPA 1974). See MPEP 2113. Regarding claims 3, 9, and 43-44, Kosugi et al. fails to disclose the metal pieces of the face member may have different thicknesses. Shaw teaches the face-piece components may have a thickness variation in vertical and lateral planes and such geometric configuration facilitates proper weight distribution to the club head (Col. 2, lines 39-63). Thus, it would have been obvious in view of Shaw to one having ordinary skill in the art to modify the golf club head of Kosugi et al. with metal pieces have different thicknesses to provide proper weight distribution to the club

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head. Furthermore, it would have an obvious matter of design choice to one having ordinary skill in the art to select the metal pieces having the same or different thicknesses since the court held that a change in size is within the level ordinary skill in the art. See *In re Rose*. See MPEP. 2100.04. Regarding claims 4 and 10, the combination of Kosugi et al. and Shaw discloses the face material component(s) of the claimed invention since Shaw teaches the face component(s) may be selected from a variety of materials in order to obtain certain properties such as weight distribution, hardness, and flexural modulus, and etc. (Col. 2, lines 13-24); thus, it would have a prima facie obvious to one having ordinary skill in the art to select various materials for the face components to obtain certain desirable properties for the club head. Regarding claims 5 and 11, the recitation with respect to the melting temperature does not further add structural limitation to the claimed invention, and it appears the combination of the above applied references has a face component with melting temperature of the claimed invention being the fact that the face material of the applied references is made of the same material as the face component of the claimed invention. Regarding claims 6 and 12, Kosugi (Col. 3, lines 25-38) and Shaw disclose various metals (Col. 2, lines 13-20) can be selected to confer the characteristics particularly desired for the striking face.

4. Claims 27-29, 41, and 47 are rejected under 35 U.S.C. 102(e) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Peterson (6,339,869). Peterson discloses a wood-type golf club head having a hollow head body (Fig. 1)



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comprising: a shaft (19); a side wall member including a plurality of casting pieces (side wall 30 and cap 36) and the pieces 30 and 36 can be fused or welded (Col. 6, lines 20-34) to form a curved surface portion of the side wall member (Fig. 1). The recitation with respect to "laser welding, press forming, and forged or rolled" is directed to the method of production, which does not impart structural limitation to the claimed apparatus. Note, the patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even through the prior product was made by a different process. See *In re Thorpe*, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985) and *In re Fessmann*, 489 F.2d 742, 744, 180 USPQ 324 (CCPA 1974). See MPEP 2113. Regarding claim 41, the recitation with respect to "laser welding of plurality of metal pieces in the same plane and press forming to formed a curved surface portion of the striking face" is directed to method of production, which does not impart structural limitation to the claimed apparatus. Note, the patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even through the prior product was made by a different process. See *In re Thorpe*, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985) and *In re Fessmann*, 489 F.2d 742, 744, 180 USPQ 324 (CCPA 1974). See MPEP 2113. With respect to claim 47, Peterson appears to show the metal pieces have the same thicknesses. Furthermore, it would have an obvious matter of design choice to one having ordinary skill in the art to select the metal pieces having the same thickness since the court held

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that a change in size is within the level ordinary skill in the art. See *In re Rose*. See MPEP. 2100.04.

5. Claims 30-32, 42, and 48 are rejected under 35 U.S.C. 102(e) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Galy (5,971,867). Galy discloses a wood-type golf club head having a hollow head body (Fig. 4) comprising: a shaft (inherent feature of golf club); a sole member (11) including a plurality of pieces (sole plate 11 and arc shape portion 32), which are welded together to form a curved surface portion of the sole member (Col. 4, lines 55-61). The recitation with respect to “laser welding, press forming, and forged or rolled” is directed to the method of production, which does not impart structural limitation to the claimed apparatus. Note, the patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even through the prior product was made by a different process. See *In re Thorpe*, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985) and *In re Fessmann*, 489 F.2d 742, 744, 180 USPQ 324 (CCPA 1974). See MPEP 2113. Regarding claim 42, the recitation with respect to “laser welding of plurality of metal pieces in the same plane and press forming to formed a curved surface portion of the striking face” is directed to method of production, which does not impart structural limitation to the claimed apparatus. Note, the patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable

even through the prior product was made by a different process. See *In re Thorpe*, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985) and *In re Fessmann*, 489 F.2d 742, 744, 180 USPQ 324 (CCPA 1974). See MPEP 2113. With respect to claim 48, Peterson appears to show the metal pieces have the same thicknesses. Furthermore, it would have an obvious matter of design choice to one having ordinary skill in the art to select the metal pieces having the same thickness since the court held that a change in size is within the level ordinary skill in the art. See *In re Rose*. See MPEP. 2100.04.

### ***Response to Arguments***

Applicant's arguments filed 9/26/2006 have been fully considered but they are not persuasive. The declaration under 37 C.F.R. 1.132 filed on 9/26/06 is acknowledged. Examiner agrees that laser welding technique provides some advantages over conventional welding techniques; however, the method of production does not impart structural limitation to the claimed language because patentability of a product does not depend on its method of production. See *In re Thorpe*. MPEP 2113.

(1) Applicants argues on page 5 that Chen provide a single piece formed of a single material not a striking face including a plurality of metal pieces. Examiner respectfully disagrees. Chen clearly discloses the striking face (60) is formed of a main piece 62 of titanium and an arcuate piece of 64 of stainless steel. (Col. 2, lines 58-64). Applicants further argue on page 6 that Chen fails to disclose the method of laser welding and press-forming the metal pieces of the striking face. It is submitted that

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such argument is directed to the method of forming the striking face. Note, the patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even through the prior product was made by a different process. See *In re Thorpe*, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985) and *In re Fessmann*, 489 F.2d 742, 744, 180 USPQ 324 (CCPA 1974). See MPEP 2113.

Moreover, there is nothing unobvious about providing conventional laser welding technique to club parts over conventional welding techniques since laser welding is more precise and has less heat affecting area, which minimizes corrosion and cracking.

(2) With respect to the argument of Ciasullo's reference, Applicants argue the inner and outer shells are bonded by explosion welding not laser welding. Again, such argument is directed to the method of production which does not impart structural limitation to the claimed invention. (3) With respect to the argument of the Galy's reference, Chen's comment with respect to laser welding and press-forming of metal pieces applies here. (4) With respect to the argument of Kosugi' reference, Chen's comment with respect to laser welding and press-forming of metal pieces applies here. (5) Applicants argue the Shaw's reference is directed to the iron-type golf club not a wood-type golf clubs.

Examiner respectfully disagrees. The concept of designing the striking face for iron type golf club can be applied to golf club of wood-type club head to control the weight distribution, friction, spin rates, resilience, hardness, and etc. as evidenced by Shaw.

***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tom P. Duong whose telephone number is (571) 272-2794. The examiner can normally be reached on 8:00AM - 4:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenn Caldarola can be reached on (571) 272-1444. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Tom Duong  
December 11, 2006

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